N.Z.V.R.S. Bulletin

NEW ZEALAND VINTAGE RADIO SOCIETY
Vol. 14 No.2 August 1993

HIS DADDY'S CHOICE*

An early British multi-panel receiver of 1924 vintage. This rather elaborate set appears to have used 'R' type valves and was obviously some home-constructor's pride and joy
* With apologies to DeForest Radio Tel. & Tel. Co.

OBITUARY

MAURICE ISAAC THOMPSON

Morrie Thompson aged 80 died on 16 July 1993 was a very early member of the NZVRS. He was in the RNZAF during W.W.II attending course R9 at E & W school in Christchurch and later was posted to the U.K. The committee and members of the NZVRS extend sympathy to Mrs Thompson.

INFORMATION WANTED

RADIOLA SPEAKER

Does anyone recognise this speaker which carries a Radiola nameplate? Model number? Date? Other details?

LETTERS TO THE EDITOR

THE COCONUT GROVE

In the year 1928 I was living at Reporoa, half way between Rotorua and Taupo. A local garage owner purchased an HMV d.w. radio, which I believe was the second radio here at the time. This set had a revolving turntable base and in order to get maximum volume when receiving a station the set had to be rotated.

There was always a crowd at the owner's house on Saturday night, and the only station everybody enjoyed was KFI Los Angeles. The announcer used to say "You will now be listening to music from the Coconut Grove in Los Angeles for the next hour."

Do any other members remember this broadcast?

Harold Ault

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78 RECORDS

I am also a collector of 78 records. I first met Alvin Taylor at clearing sale of radio gear at Opunake and we have been friends ever since. While stopping at my sisters place at New Plymouth I went to see Alvin's 78 record collection, after hearing many old favourites, I started to set up the same sort of system. Alvin supervised the whole operation, he visited Hawera now and then to see how I was progressing.

I finished with a 301 turntable and a home brew negative feedback unit, pre-amp and amplifier. A Rega tone arm, fully balanced with a cartridge and stylus imported from England to play 78 records only. I made the tone arm adjustable to get the correct angle (adjusted while the record was playing).

I am somewhere near the record reproduction that Alvin produced from his 78 records and now play 78's for one hour every night and when I have visitors. The tone arm weighs 3.5 grams instead of 4.5 ounces with steel needles.

Owen Nairn

MORE THOUGHTS ON THE HUMBLE BELL COLT

(i) It also appeared under the name of Skymaster (Bond and Bond brand label)

(ii) It was used as a radiogram unit, I believe as the tablegram model Jupiter.

(iii) It came out as a broadcast radio with with marine band 2182 kHz frequency range fitted.

(iv) Question. Does a Bell Colt fit into a PYE Clipper 5M4 cabinet?

Des Smith.

EARLY SOUNDS

A shop called "Early Sounds" has opened for business in Queens Arcade retailing vintage radios. The shop is operated by a member of the NZVRS Graham Lindsey and his son Phillip. There has been some misunderstanding regarding the part that the NZVRS plays in this operation.

Other than the fact that Graham distributes membership forms for the NZVRS the Society has no involvement whatsoever with his business. The Society remains a non profit organisation as is laid down on the inside cover page of this and previous Bulletins.

VINTAGE RADIO EXHIBITION

As this is the last Bulletin before the September exhibition we are including a folded publicity poster with it. If you can find a place for it, stick it up at where people can notice it.

Those out of town members considering attending but inhibited by the cost of accommodation in Auckland, should contact Ned Matich or Murray Stevenson who will be able to sort out some form of billet with local members. Note that the Monday following the exhibition is our Auckland meeting and auction night, which may be worth extending your stay in Auckland and will assist in disposing of any unsold items which you do not wish to take home again.

A sign and a large dummy cathedral radio are being erected in the field next to the hall as this is being written. The hall will have two areas one for the exhibition items and an adjacent room where members may sell and buy items both among themselves and to the general public. Any members who have radios they wish to display should notify Murray Stevenson who is co-ordinating the exhibition items to ensure not everyone brings the same coloured Bell Colt. Out of town members are encouraged to bring items for the exhibition.

Ultimate Ekco Service Bulletin For Circuits RES: REU: REV.

Due to the occasional failure of type SH-IB silicon rectifiers used in radio and radiogram chassis, RES, REV, REU, with resultant damage to the power transformer, present and future productions will incorporate a simple fusing device.
A resistor, with a suitable characteristics, has been placed in series with the rectifier as a fuse. The resistor used is a Philips Hi-Stability cracked carbon eighth watt. Its value is 18 to 22 ohms, is dependent on supplies. Warning the protection supplied by this resistor is quite dependent on its characteristics. Substitution is not permissible.
Data supplied by Merv Mcleod.

RADIO LICENSING IN THE UK

I was interested to read Jack Rhodes' letter about radio licensing in Canada. But Canadians can congratulate themselves in avoiding the confusion and complexities which beset us in England in early days.

Here there was a requirement from 1905 for amateurs to obtain an Experimenter's Licence if they wished legally to receive wireless telegraphy or telephony transmissions. They had to convince the General Post Office - the communications authority -- that they were bona fide experimenters. The licence was free up to 1913 after which a fee of one guinea was payable, equivalent to something like 1OO pounds in today's money.

At the outbreak of World War I in 1914, amateurs had to dismantle their aerials and allow their apparatus to be impounded by the Post Office: they were permitted to resume in 1919 when a new Experimenter's Licence was introduced at a cost of ten shillings. The conditions for issue are reproduced here and seem quite daunting, but over 18,000 of these licences were in force by November 1922 when the British Broadcasting Company (not a Corporation until 1925) started regular broadcasting in the UK.

For those who wished simply to listen to broadcasts without being experimenters, a Broadcast Licence was required. This entitled listening only on receivers registered and approved by the GPO and bearing the BBC stamp with the legend 'Type Approved by Post Master General': the conditions for approval are also reproduced here. The cost of this licence was ten shillings, of which half was given to the BBC: in addition the BBC received a royalty payment of 10% of the wholesale price of all sets sold.

Only equipment made by members of the British Broadcasting Company could secure GPO approval; and the Broadcast Licence did not authorise use of home-made or foreign sets, or any others made by non-members of the BBC.

Manufacturers' receivers were extremely expensive and of course very many people chose the much cheaper approach of making their own, from kits or from instructions published in the wireless magazines. But there was no licence available to these home-builders so they just carried on without, or took out Experimenter's Licences on false pretences. The BBC did not receive any part of the Experimenter's Licence fee, so either way found itself well short of its expected revenue.

The Sykes Committee was set up by the Government in early 1923 to sort out the problem, reporting towards the end of the year. One of their less useful recommendations was that holders of Experimenter's Licences should give a written undertaking not to listen to broadcasts except for experimental purposes! Understandably this recommendation was rejected as unworkable. More practicable was the Committee's suggestion that the BBC's share of the Broadcast licence fee should be raised to seven shillings and sixpence: and that there should be a Constructor's Licence for the do-it-yourself brigade at fifteen shillings, of which twelve shillings and sixpence should go to the BBC. The Constructor's Licence permitted only British components to be used.

At the same time a fifteen shillings Interim Licence was made available for a few weeks to enable hitherto unlicensed listeners to put themselves within the law. So during this period there were no less than four different licences for radio listening! The position was finally rationalised in mid-1924 when the various licences were replaced by a single Licence at ten shillings and the BBC royalty was discontinued. The licence fee was raised to one pound in 1946 and to twenty five shillings in 1965. From 1971 the requirement for a licence for sound-only reception was abolished.

Pat Leggatt
June 1993

Experiments in Wireless Telegraphy

N.B. Under the Wireless Telegraphy Act, 1904, the Postmaster General's authority is necessary before any apparatus for wireless telegraphy is installed or worked.

Authority for the use of Receiving Apparatus.

Conditions of issue, etc.,

Formal licences to conduct experiments in wireless telegraphy cannot at present be granted; but, pending the settlement of outstanding questions, the Postmaster General is prepared to authorise the use of wireless apparatus for the reception of signals on the following conditions:-

(1) The applicant shall produce evidence of his British nationality and two written references. (A certificate of birth should be furnished if possible; but this will not be insisted upon if the two referees testify of their own knowledge that the applicant is of British nationality. The references should be given by persons of standing who are British subjects and not related to the applicant).

(2) There shall be no divulgence to any person (other than properly authorised officials of His Majesty ' s Government or a competent legal tribunal) or any use whatever made of any message received by means of the apparatus.

(3) The installation shall be subject to the approval of the Postmaster General.

(4) The aerial shall not exceed the undermentioned maximum height and dimensions:-

Extreme height of aerial above ground 100 feet.

Total length of wire including leading-in wires. 100 feet for single wire aerial.

140 feet where two or more wires are used (e.g. total length of 70 feet of double wire)

(5) Valves shall not be used without the special authority of the Postmaster General.

(6) The apparatus shall be open to inspection at all reasonable times by properly authorised officers of the Post Office.

(7) A fee of 10/- shall be paid. (It is contemplated that an annual charge of 10/- shall be node in respect of each experimental receiving licence to cover the expenses of the issue of the licence and the inspection of the station).

Procedure to be followed.

The applicant should furnish:-

(a) a formal acceptance of the foregoing conditions;

(b) evidence and references as described in (1);

(e) his full Christian names and particulars of his occupation;

(d) a remittance of 10/-;

(e) a description of the apparatus which it is proposed to instal, and, if authority is desired for the use of valves, a diagram of the circuits in which they would be used;

(f) a sketch showing the form, height and dimensions of the proposed aerial (including leading-in wires);

(g) the address at which the apparatus would be installed.

If it is desired to purchase wireless apparatus for use under the prescribed conditions full particulars of the apparatus, and the name and address of the firm from which it is proposed to obtain it, should be furnished, in order that a permit for its purchase may, if necessary, be issued. Any wireless apparatus belonging to the applicant which is in Post Office custody will be released as soon as authority is granted for the use of such apparatus.

N.B. Authority to use wireless apparatus cannot: be issued to a minor (i.e. a person under 21 years of age). Application should accordingly be made on his behalf by his parent or guardian who should proceed as indicated above and should, in addition, state his (or her) relationship to the minor. In such cases the evidence and references specified in condition (1) should be furnished BOTH AS REGARDS THE MINOR AND HIS PARENT OR GUARDIAN. The would be no objection to a minor working the authorised apparatus as the agent of his parent or guardian.

(These conditions issued July 1919).

SOME SYMBOLS

JOHN W. STOKES

Recently, while talking to one of our younger members who was seeking enlightenment on the circuitry of a 1933 American radio, I discovered that he was a little confused about the manner in which resistance values were indicated in the manufacturer's diagram. And, well he might be! In those far-off days there was a considerable lack of standardisation in the way that resistance values were expressed, so a few words on the subject may be of interest.

In this case the confusion was caused by the then common American practice of using a capital 'M' to indicate 1000, thus a 50,000 ohm resistor would be shown as 50M, and so on. This practice was not confined to schematic diagrams or parts lists, either, as examples are also to be found in literature of the day. Even some makes of potentiometers (controls) had the resistance values marked on them in this way.

Those people who have never known the time when the the prefix 'M' ever meant anything but mega will have good reason to feel confused by this non-standard use and perhaps wonder why 'k' was not always used to indicate 1000 and why it took so long to be accepted. Why indeed, when we have had MV for megavolts and kV for kilovolts from the earliest days.

Another cause for present-day confusion, the origin of which goes back even further in history, concerns the use of the Greek character 'omega' to represent ohms. Incidentally, I wonder whether this particular letter in the Greek alphabet was chosen for the purpose because it rhymed with Mr Ohm's name. Seems to be too much of a coincidence to be other than a matter of deliberate choice, don't you think? So, what's all this about?

Anyone who has had cause to examine any very early diagrams, either British or American, is likely to find resistance values indicated by two different symbols Ω and ω. Actually, they are just two ways of writing the same character depending on whether it is 'big' or 'little', but big omega was once used to indicate megohms, while little omega was used to indicate ohms. This usage has been traced back as far as 1923 in the U.K. and 1925 in the U.S. Although the use of little omega in this way was carried on in some instances right up to about 1940, the use of big omega to indicate megohms had disappeared by about 1926 in the U.S.A. but was occasionally encountered in British diagrams published in the early 1930s. This explains why to-day's younger readers on encountering a diagram in which a grid leak is marked 2Ω are apt to think it is a misprint. Such a case was recently mentioned in an overseas journal.

Turning now from R to C, we find the same letter M being used incorrectly, but this time in a different way. It was common practice for many years, indeed right up to the 1960s in some cases to mark capacitors, whether on schematic diagrams or on the actual components, by using the letters MF to indicate microfarad. This time it was the Greek letter mu in its big form 'M' that was being misused for, as mentioned earlier, M was supposed to represent mega, and who has ever heard of a megafarad? No, it was little mu 'μ' representing micro, which should have always been used, and indeed generally was in the U.K.

It seems to have been the practical difficulty in reproducing the symbol μ in print that led to the adoption of M in its place. In recent years it has become the practice in some quarters to use a small letter 'u' in typing or printing as a satisfactory substitute for the real thing. But, regardless of how the abbreviation is written, the microfarad was still inconveniently large when dealing with the smaller values of capacitance encountered in practice.

Before the introduction of the picafarad it was necessary to write or say micro-microfarad, or else use a string noughts (zeros) following a decimal point, e.g. .00005 MF, or whatever. Incidentally, although the term picafarad did not come into general use until after WW2, the N.Z. firm of Radio Ltd used the marking "P.F." in circuit diagrams for the years 1932 and 1933 but then abandoned it until the late 1950s but even then did not use it consistently. The question now is - where did Jack Orbell get the idea from? Does anyone know of an earlier useage than 1933?

Of recent years the trend has been to avoid the use of Greek symbols in schematic diagrams. In the case of resistance this is not difficult as by using just the letter M to indicate megohms and k for kilo ohms the ohms symbol itself can be dispensed with; low values up to 999 ohms can be indicated numerically without the need for either symbol or prefix.

Capacitance presents more of a problem as there can never be an non-Greek symbol for micro. However, values up to 999 picafarads can be indicated without the use of any suffix, the pF part being understood. Values up to 0.9 microfarad can be indicated by 'n' for nanofarad, but for some reason this prefix has never come into general use. But, when it comes to microfarads we are back to square one, the best we have come up with is to type or print a small 'u' thus uF, in fact so common has this practice become in some quarters that little mu has become one of an endangered species!

THE CENTRAL OTAGO RADIO CLUB.

4ZC

Dear Listener,

Thanks for your report on our transmission of

We Transmit on 1280 k.c. as under :

MON.	TUES.	WED.	THU.	FRI.	SAT.	SUN.
12 to 1.	12 to 1.	12 to 1.	12 to 1.	12 to 1.	12 to 1.	11 to 12.30
7 to 9.			7 to 10.		5.30 to 7	

The Brighter Broadcasting Service.

Owned-Operated by

BILTON'S RADIO SUPPLIES,

CROMWELL.

Support the B-Class Stations.

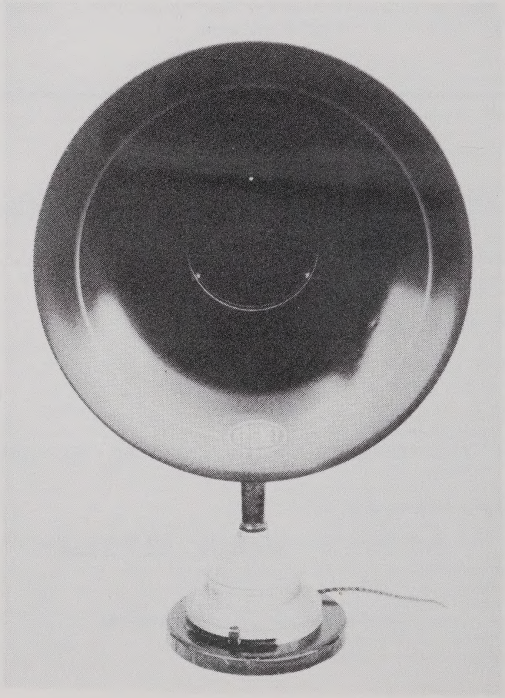
A FRENCH HORN SPEAKER

I recently obtained this unusual horn speaker about 15 miles out of Timaru, although the previous owner had purchased it second hand when he used to live in Auckland many years ago.

It is called a Brunet and I had never heard of this brand before although it is listed in Ray Kelly's Horn Speaker Scrapbook from Australia as being manufactured by Brunet et Cie, Paris France. Has any other NZ collector seen one of these speakers or know anything about them? I wonder if they were imported into New Zealand by an agent or whether this one one came in on its own with an immigrant or returning New Zealander from an overseas trip.

The speaker itself is a swan neck type 14 inches in diameter of conventional design except for the base which is of turned wood with aluminium fittings. This makes it look quite striking when sitting alongside other horn speakers which are normally an "all over " the one colour.

Alan Brehaut.



BROADCASTING NOSTALGIA

Peter Lankshear

The cover picture on the May 1993 Bulletin brings back a lot of memories. Many NZBC stations had similar equipment during the 1950's. There were too few pictures taken of broadcasting control rooms in those days. For one thing, we couldn't afford decent cameras!

There is a lot of history in that picture. The EMI tape recorder at the left, (in 2 tone green) was the first capable of musical reproduction that we encountered, and was probably the first professional English model. (the Allies had just recently brought the Magnetophon developments and patents out of Germany). Tape spools were 10" in diameter and one sided! The 1/4" tape itself was very brittle and you can imagine the mess when it broke and flew off on a fast rewind. Recording speeds were 15" and 30" per second!

The rack mounted equipment was basically AWA. Black was the standard colour and panels had to be polished each week. The square meters in the top centre belonged to the AWA Audio Oscillator and Noise and Distortion meter. These were in frequent use checking amplifier performance and the entire system had to be checked monthly. Above the operator's head in the end rack is a radio dial belonging to an Australian STC communications receiver. Wiring in these sets was an immaculate example of laced looming.

Turntables were 16" diameter to take the 15 minute 33 1/3 rpm recordings for serials. One of these is being held by the operator's right hand. These discs were very fragile and an inheritance from the early talkie industry. The two metal cylinders with knobs in the foreground on the turntable cabinets were record weights. They had holes on the undersides and were put over the turntable spindles if there was any chance of the record slipping. Partly out of sight at the operator's left is the mixer panel, with the pickup and microphone controls.

The white horizontal strips on the racks are the jack field labels. Every amplifier and circuit terminated in jack sockets. These could be connected as required with patch cords, but a normal interconnections were made automatically via closed circuit contacts on the jack sockets.

Finally, the cabinet at the top right hand of the picture is a monitor speaker. A classic bass reflex cabinet, it would have probably held a 15" RCA LC1A or maybe an Altec Lansing 604. These concentric speakers cost the equivalent of about 6 months salary for a young technician and are now collectors' items, still with excellent performances.

MORE ON THE GREBE SYNCHROPHASE

JOHN W. STOKES

In a previous Bulletin article on this subject* it was stated that the MU1 Synchrophase receiver was released in mid-1925, but it is not quite clear from available information whether the earlier versions were also known as MU1. In service data covering the 1924 and early 1925 versions both are captioned "Grebe Synchrophase Receiver" and only the 1926 model is described as "Grebe Synchrophase Receiver MU-1". From this it would seem that the first two were never assigned model numbers, even though the "1" part of MU-1 could indicate that it was the first.

And now, a word about the "MU" part. Towards the end of 1921 Grebe advertisements commenced to depict an imaginary Oriental gentleman known as "Doctor Mu" who qouted ancient Chinese proverbs coupled with his own words of wisdom plugging Grebe products. Rather obviously, when the MU-1 was launched it was Doctor Mu's name which formed part of the model's title. Actually, there were at least seven receivers, including three AC models, named Synchrophase but only two are known to have the magic letters MU in their titles.

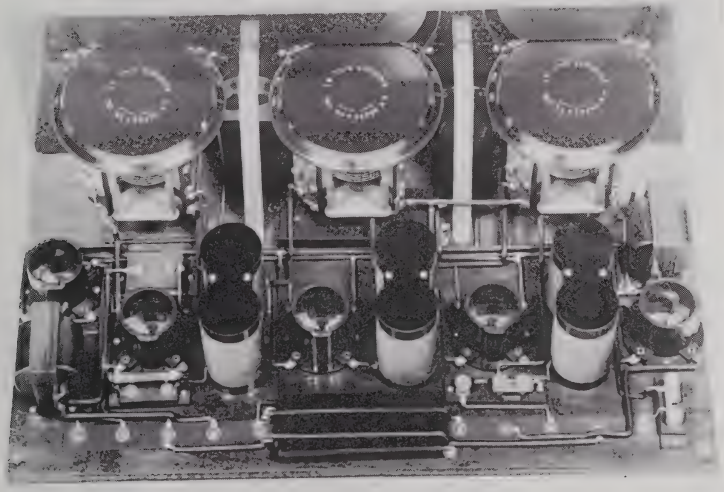
Although it is not the writer's intention to provide a detailed description of the various developments and modifications which occurred during the production lifetime of these receivers, probably the most interesting were the unique "one or three dial" operation obtained by linking the three tuning capacitors by means of ball chains, and the split-band switching arrangement. Neither of these two features was incorporated in the 1924 model as can be seen studying the internal view illustrated here.

Acknowledgement: Thanks are due to Alan Douglas for kindly providing the photographs used to illustrate this article.

* Some Thoughts on the Grebe MU1 Synchrophase. NZRVS Bulletin 10-1-10

The
GREBE
SYNCHROPHASE
TRADE MARK REG. U.S. PAT. OFF.
This company owns and operates stations WAHG and WBOQ; also low-wave rebroadcasting stations, mobile WQMU and marine WRMU.
"It is only he who possesses absolute truth who can create."
— Confucius
The constant seeking for truth has created the "Color-tone" and other Grebe advances in radio reception.
Doctor Mu
Synchrophase is also supplied with base for batteries and in a de luxe Console model.
All Grebe apparatus is covered by patents granted and pending.

Inside view of early model. Note absence of tuning linkage. Photos supplied by Alan Douglas.



An illustration from "Radio Engineering" by Roy. C. Norris 1943. Received from Andy McTurk of
Whangamata.

AN IMPORTANT STAGE IN RADIO-RECEIVER PRODUCTION

Skilled engineers are here seen applying tests and making various adjustments to completed receivers. Exhaustive tests are carried out at every stage of production prior to the assembly of the sets. Note the protective chassis-cradles and the overhead conveyer.

SERVICEMAN TELLS

KEITH McILRAITH

New members of this radio society may find some initial help in fixing old sets if tackled in this way.

Do not remove valves or take the chassis out of the cabinet. This could upset an intermittent fault. Check the three pin plug on the power cord, OK, plug into power, switch on and check if the dial lamps light up. If there is no illumination of the dial lamps they may be burnt out. Take off the valve top covers, see if all are alight. Watch the 80 or similar rectifier valve to see if the plates in it show red hot. If they do, turn the set off and if a replacement valve does the same it denotes a filter condenser breakdown. Presuming all the valves are alight, find the second detector valve, this could be a 6B7, 6B8, 75 or 2B7, 2A6, 55 with 2.5 volt heaters. Lift the grid wire off the valve top, if the set makes a howl or a flop noise when the valve top is touched this denotes the audio section, valves, any coupling condensers, input, output, and power transformers and lastly speaker connecting wires are OK. If not so you could change the audio or output valve. If not so you could change the audio or output valve. If there is still no squeal, remove the chassis after pulling the plug from the a.c. mains and from underneath the chassis short out the remaining voltage at the filter condensers. With an ohm meter check the parts mentioned for open windings and condenser shorts.

Should this area be OK, the audio section squeals and all the other valves have been changed, the plate and screen voltages checked at the valve sockets under the chassis, then the set should be unplugged and ohm meter tests carried out on the coils and I.F. (intermediate frequency) windings, switches and aerial coil. The aerial coil is commonly burnt out. Look for dry solder joints and bent tuning gang plates. There is a possibility of some previous handyman owner turning all the trimmers in sight, to find this and correct it a signal generator would be necessary.

Good luck..... perhaps another member will continue another service article.

WANTED

Loudspeakers for Atwater Kent consoles 559 and 487. Two knobs for the 559. Jack Riddle East Takaka R.D.1 Nelson.

WANTED

Dial scale for Philips Radioplayer 152, vertical scale No. 1102.
Harold Ault. C/- Postal Services Kawhia. Ph.8710767.

Atwater Kent compact or Philco Junior cathedrals, cash or trade for sets in available column. Dial glass for American Bosch 660C and for PYE PE 80 Cambridge International (21.5" x 7.5" oblong). Graham Lindsey at Early Sounds Ph 3661344, a/hours 4182473, fax 09-3580660

Cabinet for Radio Ltd. RAC (b.c. Minor) see p.73 Golden Age. E.M. speaker for Columbus 75. Set of knobs for PYE PZ92.
Dennis Seymour. P.O. box 23474. Papatoetoe. Ph. 2674442 home, 5730800. work.

Dial escutcheon for Zenith 7S series (pear shaped). Laurie Rhodes 13A Rutherford Tce. Meadowbank Auckland. Ph. 5284589.

Circuits and service information for the following receivers; Hallicrafters SX-101, Lafayette HA-700, National NC-121, Heathkit RG-1.
John Walker ZL3IB, 19 Athol Tce, Christchurch 4. Ph. 03-3489084.

Brunswick Model 11. shown on p183 of More Golden Age.Back for AWA Radiola bakelite R52 looks like the 49, 50, 60 on p28 More Golden Age. Ian Sangster address in ad header.

Four black Fisk Radiola plastic knobs. One plastic dial surround, see p28 second l.h. side More Golden Age.Des Smith 156 Rangitoto Road Papatoetoe.

A.K. 337 chassis and speaker or complete radio cabinet condition irrelevant. Philips 630A knobs. Zenith 288 5B knobs. Large upright table radios i.e. Zenith, A.K., RCA and Pilot, other manufacturers considered particularly with large dials. Philips & Telefunken radios and extension speakers and incomplete radios considered. Will pay or have swaps.
Eddie Maddocks. 16/60-66 Auburn St. Sutherland N.S.W. Australia. 2232.

Does anyone have or know whether another Pilot All Wave New Super Wasp radio exists, see Bulletin vol.12 no.3 page 12. Please advise, all costs met.
Barry King 16D Parity Pl. Glenfield Auckland 10. Ph.4838823 (collect).

Complete dial assy for Gulbransen 2C or would consider chassis or radio.
Noel Laing 17 Puriri Cres. Edgecumbe. Ph. 07-3049873 (collect).

Source of supply for 2 volt M.E.S. bulbs (not torch type). Two bakelite MFK 1 knobs (see p15 More Golden Age). Columbus 66 or 27 two band dial scale. Doug MacKenzie 60 Pacific St. Dunedin. Ph. 03-4672182.

Two 6SJ7, three 6C5 and two 6SK7 valves. W.Meiklejohn 56 Kokich Cres. Onerahi Whangarei. Ph. 09-4361922.

WANTED

Circuit diagram for PYE PZ 45, one PYE round label, dial scale for PYE PZ43 (see p.39 Golden Age), dial scale for Radio Ltd. BAU (see p.73 Golden Age)
Dennis Seymour PO box 23474 Papatoetoe. Ph. 5730800 work 2674442 home.

Valves STC 4300A, STC 4310A, 5X4G will swap 2A3 and 6A3 for these. Leak stereo 20 amplifier, Lowther PM2 or PM4 speakers with or without cabinets.
John Rivers 31 Park Road Palmerston North. Ph. 06-3593094.

Technical data or user instructions for Weston 661 tubechecker, Weston 770 tubechecker, Weston 772 analyzer (multimeter), Bell 2.5 inch oscilloscope (NZ made, I think) and Marconi Instruments video oscillators TF 885 & TF885A/1.
Don Sutherland 23 Peakes Road Wanganui 5001. Ph. 06-3457753.

Instruction book and or circuit for Hickok AC51 valve tester or loan of same to copy. A.F. gain knob for HRO rx, black bakelite with engraved metal skirt. Engraved name plate for NZ P&T dept rx type 941 SWB. Two indicator plates 0-10 chrome numbers on black for use behind potentiometer knobs, size 42 x 57mm (see picture in most Lamphouse Annuals) has mtg. holes in corners. Front panel for FADA 192A Neutrolette.
Phil McGechie 64 Marellan Dr. Red Beach Orewa. Ph 09-4266661.

Atwater Kent 165 and 944 chassis or any parts for them. L.B.Hartley 114 Charlotte Cres. Hastings. Ph. 8763643.

Dud DeForest valves, WD11 or WD12 or bases for the same. Baseboard mounting sockets for W.E. 205D. Good uncracked cabinet for Philco 203A (see Golden Age p48). RF and oscillator coil box for Superhetrodyne battery set. 4000 ohm horn speaker. New Red Diamond crystal detector. Battery set components, kitsets, home builts etc.
Donald Laing 85 High St. Eketahuna Wairarapa. Ph. 06-3758271.

A couple of Radiolette badges. Des Leonard. 49 Williamson Ave Takapuna Auckland 9. Ph.4456421.

A ZC1 MK I . Ian Sangster address in ad header . Ph. 09-8149597.After 25 August.

A Karas "Harmonik" audio transformer. Looks like a small electric motor. Will buy or swap irrespective of the continuity of the windings. Dave McLaren 25 Aotea St. Dunedin or phone, collect 03-4550693.

AVAILABLE

2A3 and 6A3 valves will swap for STC 4300A, STC 4310A and 5X4G. John Rivers 31 Park Road Palmerston North.

Philco 38-5 in good going order, cabinet refinished. One of the last rounded top Philcos see p168 More Golden Age bottom right corner. Offers . Ian Sangster address in ad header Ph 09-8149597 after 25 August.

MARKETPLACE

Advertisements for the next issue must reach the Editor by the 18th October 1993. Ads should be either hand printed or typed on a separate page. Note: no verbal or phone ads will be accepted. Remember to include your name, address and phone number. There is no charge for ads but the NZVRS is not responsible for transactions between members. Address ads to; Ian Sangster 75 Anawhata Road Piha R.D.1 New Lynn. 1232.

AVAILABLE

Collection of 24 communications receivers, transmitters, accessories, wide range of components and valves. Offered as one lot, negotiable. For further details contact:
Des Wright, 3 Tamatea Drive, Snells Beach, 1490. Phone 09-4256068.

Plastic cabinet for Clipper 5M4 (see p38 Golden Age) , cabinet for Cromwell, same as Pacemaker 519P (see p106 More Golden Age). One Heathkit crystal filter No. 404-328. W. Meiklejohn address in wanteds.

Columbus 173 two band and push pull. Good condition. $80. Columbus 26N b.c. good condition.$55. Philco 71E cathedral not going and needs some TLC. Circuit diagram supplied, cabinet same as 91E on P112 of Golden Age. $120. HMV.wind up gramophone, going order good condition plus a few 78 records. $75.
Doug Virtue. C/- NZ Postal Agency Kingston 9660. Phone 03-2488585.

Bell chassis with 12" speaker and turntable, push pull in going order. One chassis push pull ECL86 with turntable and knobs, dial broken.
H.Ault C/- Postal Services, Kawhia. Phone evenings 8710767.

1931 Fisk Radiola 45C legged console, 1933 Raycophone 63A/E 6v console, 1930 STC kitset fretwork console 5v trf swap for what have you. Graham Lindsey Early Sounds 3661344 bus. 4182473 a/h fax 09-3580660.

NEW MEMBERS

K.J.Horn	Waihi	R.R.McInnarney	Auckland
L.B.Hartley	Hastings	M.S.Hoad	Auckland
A.G.Mercer	Auckland	K.N.Duley	Auckland
S.Mackay	Auckland	P.D.Woodcock	Auckland
B.Wilson	Auckland	N.G.Laing	Edgecumbe
R.J.Hadfield	Auckland	F.Stretch	Picton